

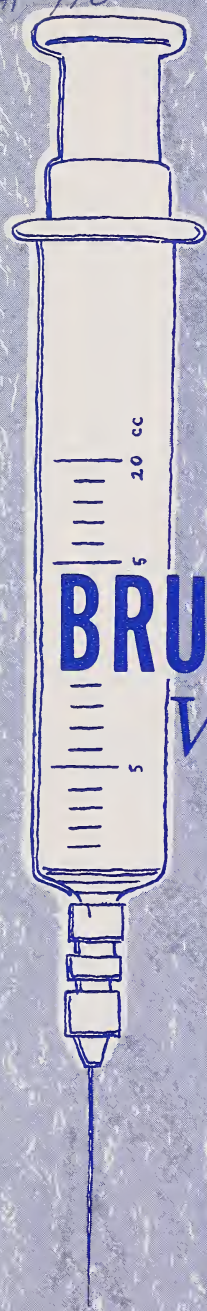
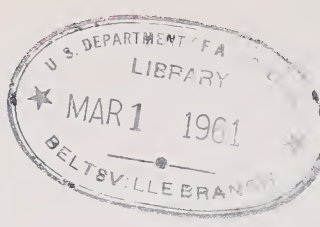
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*What
to
expect
from*

BRUCELLOSIS

Vaccination

Program Aid No. 410
U.S. Department of Agriculture

Vaccination WILL

- Provide an *average* of 65 percent protection encountered in the field.
- Help *limit* the spread of infection within a herd.
- Gradually reduce the percentage of disease as older animals are culled and the number of animals is reduced.
- Eliminate brucellosis from a *small number* of herds if management practices are good.
- Reduce *animal infection* by about 80 percent.
- Reduce *herd infection* by about 20 percent.
- Mask or moderate the symptoms in some animals.
- Cause a reaction to the blood test -- a reaction that is not there the time they are 30 months old if they were vaccinated at 6 months of age.

Vaccination WON'T

- *Eradicate or cure* brucellosis--it will help control the disease.
- Provide *complete* disease immunity in *all* animals.
- Prevent *all* animals from aborting *if they become infected*.
- Interfere with normal reproduction.
- Cause the disease in cattle or other livestock.
- Cause milk to become contaminated with B. abortus.
- Cause calves or older animals to become carriers.
- Eliminate the danger of human infection.
- Change the normal course of the disease or the time of vaccination.

- Provide an *average of 65 percent protection* from infection under usual exposures to brucellosis encountered in the field.
- Help *limit* the spread of infection within a herd if a majority of the herd is vaccinated.
- Gradually reduce the percentage of diseased animals in an infected herd over a period of years as older animals are culled and the number of susceptible animals is reduced.
- Eliminate brucellosis from a *small number of herds* where natural infection is weak and management practices are good.
- Reduce *animal infection* by about 80 percent in areas where a majority of calves are vaccinated.
- Reduce *herd infection* by about 20 percent in areas where a majority of calves are vaccinated.
- Mask or moderate the symptoms in some animals that contract the disease.
- Cause a reaction to the blood test--a reaction that will disappear in nearly all animals by the time they are 30 months old if they were vaccinated when they were from four through eight months of age.

- *Eradicate* or *cure* brucellosis--it will *help control* it.
- Provide *complete* disease immunity in *all animals*, nor will revaccination do so.
- Prevent *all* animals from aborting *if they become infected*.
- Interfere with normal reproduction.
- Cause the disease in cattle or other livestock.
- Cause milk to become contaminated with *Brucella* organisms.
- Cause calves or older animals to become carriers or spreaders of brucellosis.
- Eliminate the danger of human infection.
- Change the normal course of the disease in an animal already infected with brucellosis at the time of vaccination.

Vaccination will help to eradicate brucellosis if you follow this program:

Blood test your herd and *get rid of reactors*. The blood agglutination test is a highly accurate method for identifying infected animals.

Vaccinate all heifer calves to be kept for breeding purposes.

Avoid exposing your herd to *new sources of infection*.

Vaccination won't eradicate brucellosis from every herd or every animal when used alone. Instead, research shows:

No vaccine exists that will provide *100 percent protection* against any human or animal disease.

The effectiveness of vaccination *increases* as sources of infection are *eliminated*.

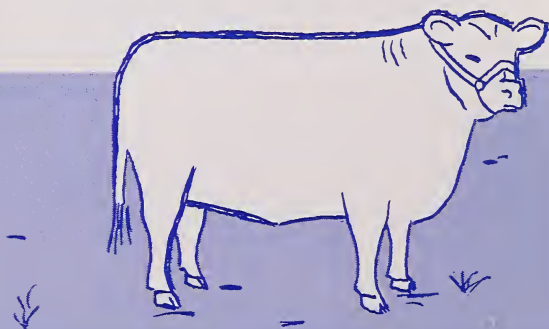
Vaccination and h

Vaccination is a valuable tool in your battle against brucellosis. But like any other tool, it has limitations; you need to know what it will and won't do when you put it to work in your herd.

Vaccination is like the brakes on your car. Their job is to slow your car down when trouble looms ahead. Usually they'll help you avoid a crackup. But you can't always depend on brakes alone to prevent trouble.

Vaccination works the same way. Under some conditions, stockmen have been able to combine vaccination and good management to gradually eliminate brucellosis from their herds and keep it out. But in most cases, vaccination alone simply builds up animal resistance to infection. This helps slow down and control the spread of disease, but doesn't eradicate it.

Research and field studies show that vaccination provides an average of 65 percent protection from brucellosis under normal field conditions. Your problem then is to do all you can to get the greatest amount of protection from vaccination. How can you do it?



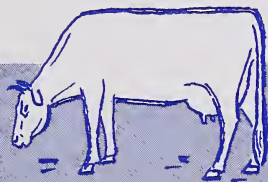
how it works

There are several things you can do. If your county isn't under an area testing program, ask your county extension agent to help you get a program started. That way you can start eliminating infection from every herd on an organized basis.

Next step is to blood test all the animals in your own herd. If infection is found, get rid of the reactors. That way you'll be rid of the carriers and spreaders that can cause trouble. This will give all your vaccinated animals a better chance to resist brucellosis.

Select the heifer calves that you expect to keep for breeding purposes. Vaccinate them when they're from four through eight months of age. This gives them a chance to build up resistance to infection by the time they're of breeding age.

After you've vaccinated your calves, blood tested your herd and disposed of all reactors, avoid bringing in animals that might cause a new outbreak of infection. When you buy replacements, be sure they're vaccinated animals from brucellosis-free herds. Through use of *all* these tools, *brucellosis can be eradicated*, not only from *your herd* but from *every herd in the United States*.



HELP FIGHT BRUCELLOSIS

This publication has been prepared to provide information to farmers and ranchers on the role of vaccination in the National brucellosis eradication effort.

Prepared by

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Agricultural Research Service
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